



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/668,492

09/23/2003

Yusuke Igarashi

14225-029001 /

2269

F1030475US

26211

7590

03/23/2005

FISH & RICHARDSON P.C.
CITIGROUP CENTER 52ND FLOOR
153 EAST 53RD STREET
NEW YORK, NY 10022-4611

EXAMINER

KEBEDE, BROOK

ART UNIT

PAPER NUMBER

2823

DATE MAILED: 03/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/668,492

Applicant(s)

IGARASHI ET AL.

Examiner

Brook Kebede

Art Unit

2823

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-18 is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/20/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. Figures 16-19 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claims 3, 4, 6, 9, 14 and 18 are is objected to because of the following informalities:
Claims 3, 4, 6, 9, 14 and 18 are contain fragmented sentences. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

For example, claim 3 can be written as -- The method for manufacturing circuit devices as set forth in claim 2, wherein said conductive wiring is formed by using an etch solution to etch said first conductive film.--. Similar changes can be made for claims 4, 6, 9, 14 and 18.

Applicants' cooperation is requested in reviewing the claims structure to ensure proper claim construction and to correct any subsequently discovered instances of claim language noncompliance. See *Morton International Inc.*, 28USPQ2d 1190, 1195 (CAFC, 1993).

Specification

4. The disclosure is objected to because of the following informalities:

In page 13, line 13 “conductive wiring layer 22” seems a typo. The examiner respectfully suggest changing “22” to “11A” because the label is consistent with what is depicted in Figs. 1-

14. Appropriate correction is required.

5. The abstract of the disclosure is objected to because the following reason:

The abstract of the disclosure is objected to because it includes reference characters which are not enclosed within parentheses. Correction is required. See MPEP § 608.01(b).

Allowable Subject Matter

6. Claims 1-18 are allowed over prior art of record.

7. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record neither anticipates nor renders obvious the claimed subject matter of the instant application as a whole either taken alone or in combination, in particular, prior art of record does not teach “removing said third conductive film by use of said conductive wiring layer as a mask; covering front-surface portions of the second conductive film exposed by removing said third conductive film, said conductive wiring layer, and end faces of the third conductive film with an insulating layer and removing said second conductive film to expose said third conductive film on the rear surface,” as recited in claim 1.

Re claim 1, Sugihara et al. (US 2002/0084456) disclose a multi-layered wiring board that includes the first metal layer, the second metal layer and the third metal layer formed on the glass substrate and patterning of the first, second and third metal layer to form a via through and filling the via with an insulating layer and selectively patterning the insulating layer in order to expose the second metal layer. However, Sugihara et al. do not disclose removing said third conductive

Art Unit: 2823

film by use of said conductive wiring layer as a mask; and removing said second conductive film to expose said third conductive film on the rear surface.

Igarashi et al. (US 6,664,138) disclose process of packaging of an IC device the process includes forming a first conductive layer and second conductive layers adhered via through the insulating resin patterning of the first conductive layer and patterning the first conductive layer to form a hole and filling the hole with an insulating layer. However, Igarashi et al. fail to disclose covering end faces of the third conductive film with an insulating layer and removing said second conductive film to expose said third conductive film on the rear surface.

Therefore, the prior art do not teach “removing said third conductive film by use of said conductive wiring layer as a mask; covering front-surface portions of the second conductive film exposed by removing said third conductive film, said conductive wiring layer, and end faces of the third conductive film with an insulating layer and removing said second conductive film to expose said third conductive film on the rear surface” either taken alone or in combination.

Claims 2-18 also allowed as being directly or indirectly dependent of the allowed independent base claim.

Conclusion

8. This application is in condition for allowance except for the following formal matters:

The formal matters that indicated in Paragraphs 2 through 5 above must be corrected prior the instant application pass to issue.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

Correspondence

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brook Kebede whose telephone number is (571) 272-1862. The examiner can normally be reached on 8-5 Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Olik Chaudhuri can be reached on (571) 272-1855. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BK
March 20, 2005

Brook Kebede
Examiner
Art Unit 2823

